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Claims

1. Electrophotographic printer or copier system with pre-processing unit and/or post-processing unit

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with a printing unit (14) that generates a print image on a carrier material,

with an operating unit (18, 20) that is connected via a data line with the printing unit (14), via which data are transferable between the printing unit

10 (14) and the operating unit (18, 20), whereby the operating unit (18, 20) outputs at least one graphical user interface (21, 32) for operation of the printing unit (14) on a display unit,

with at least one processing unit (12, 16) that can be connected with the

15 printing unit (14) and/or the operating unit (18, 20) for processing of the carrier material, such that data are transferable between the processing unit (12, 16) and the printing unit (14) or, respectively, the operating unit (18, 20),

20 whereby in the processing unit (12, 16) data are stored that are transferred to the printing unit and/or operating unit and via which a graphical user interface (21, 32) can be activated at least for the operation of the processing unit (12, 16).

25 2. Printer or copier system according to claim 1, characterized in that data for the generation of at least the user interface (21, 32) for the operation of the processing unit (12, 16) can be transferred from the processing unit (12, 16) to the operating unit.

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3.   Printer or copier system according to claim 1, characterized in that, with the aid of transferred data, a user interface (21, 32) can be displayed via data stored in the printing unit (14) and/or in the operating unit (18, 20).

5   4.   Printer or copier system according to any of the preceding claims, characterized in that at least one common user interface for printing unit (14) and processing unit (12, 16) can be generated with the aid of transferred data and with the aid of data stored in the operating unit (18, 20) or in the printing unit (14).

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5.   Printer or copier system according to any of the preceding claims, characterized in that the printing system comprises a second printing unit that generates a second print image on the carrier material, whereby in the second printing unit data are stored that are transferred to the operating unit

15   and/or to the first printing unit (14) and via which a graphical user interface (21, 32) for the operation of the second printing unit can at least be activated.

6.   Printer or copier system according to any of the preceding claims,

20   characterized in that the printing unit (14) has at least one storage region in which program elements are storage that are loaded and executed by the operating unit (18, 20) to generate the graphical user interface (21, 32), whereby the operating unit (18, 20) is a client and whereby the printing unit (14) is a server, such that the operating unit (18, 20) and the printing unit

25   (14) operate according to the client-server principle.

7.   Printer or copier system according to any of the preceding claims, characterized in that the graphical user interface (21, 32) is output with the help of a browser program module, whereby the browser program module

30   is executed by a data processing system of the operating unit (18, 20), and whereby at least distributed objects are executed by the printing unit (14).

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8.   Printer or copier system according to claim 8, characterized in that the distributed objects are remote method invocation objects.

5   9.   Printer or copier system according to any of the preceding claims, characterized in that the operating unit (18, 20) is contained in a print server that supplies a print data stream to at least the printing unit (14).

10.   Printer or copier system according to any of the preceding claims,
10   characterized in that the processing unit is a pre-processing unit, in particular a roller unit (12), a feed unit, a dampening unit or a cutting unit (16) to generate a predetermined paper format.

11.   Printer or copier system according to any of the preceding claims,
15   characterized in that the processing unit is a post-processing unit, in particular a cutting unit (16), a binding unit, a stacking unit, a booklet unit, a cooling unit, a dampening unit and/or a second printing unit.

12.   Printer or copier system according to any of the preceding claims,
20   characterized in that the program modules to control and to generate the user interface (21, 32) are stored in the printing unit (14) and are executed by this, and that these are displayed (with the aid of a browser program module) (18, 20) on a display unit of a data processing system connected via a data line with the printing unit (14) and serving as an operating unit
25   (18, 20).

13.   Printer or copier system according to any of the preceding claims, characterized in that the printing unit (14) and the processing unit (12, 16) are separate structural units.

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14.   Printer or copier system according to any of the preceding claims, characterized in that the printer or copier system (14) has at least a second operating unit (18, 20), and that the graphical user interface (21, 32) can be displayed at the same time on both operating units (18, 20), whereby inputs in input fields of the graphical user interface (21, 32) are by nature only possible from one of the operating units (18, 20).

15.   Printer or copier system according to any of the preceding claims, characterized in that the printing unit (14) authenticates (with the aid of an authentication procedure) the operating unit (18, 20), and that data to generate a graphical user interface (21, 32) are only transferable to an authenticated operating unit (18, 20).

16.   Printer or copier system according to claim 14 or 15, characterized in that, given a write request via an operating unit (18, 20), a write access right (124) can be assigned to this operating unit (18, 20).

17.   Printer or copier system according to claim 16, characterized in that the operating unit (18, 20) only receives the write access right (124) when no further operating unit (18, 20) that has already been granted a write access right (124) is connected with the printing unit (14).

18.   Printer or copier system according to claim 17, characterized in that, given a request for a write access right (124) by the operating unit (18), a message via which an operating personnel of the further operating unit (20) is asked to return the write access right is transmitted to the further operating unit (20).

19.   Printer or copier system according to claim 18, characterized in that the operating unit (18) has a higher user right relative to a further operating unit (20), and that the write access right (124) can be withdrawn from the

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further operating unit (20) given a write access right request by the operating unit (18).

20. Method to operate an electrophotographic printer or copier system with pre-processing unit and/or post-processing unit

in that a print image is generated on a carrier material with the aid of a printing unit (14),

the printing unit (14) is operated with the aid of a graphical user interface (21, 32) via which an operating unit (18, 20) is output on a display unit,

the operating unit (18, 20) is connected with the printing unit (14) with the aid of a data line via which data are transferred between the printing unit (14) and the operating unit (18, 20),

the carrier material is processed by at least one processing unit (12, 16), whereby the processing unit (12, 16) is connected with the operating unit (18, 20) and/or the printing unit (14) for the transfer of data between the processing unit (12, 16) and the operating unit (18, 20),

and in that, in the processing unit (12, 16), data are transferred to the operating unit via which a graphical user interface (21, 32) can at least be activated for the operation of at least the processing unit (12, 16).

21. Method to operate an electrophotographic printer or copier system with pre-processing unit and/or post-processing unit

in that a print image is generated on a carrier material with the aid of a printing unit (14),

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at least one processing unit (12, 16) pre-processes or post-processes the carrier material after the generation of the print image,

and in that a data processing unit controls and monitors the execution of
5   print jobs of at least the printing unit (14), whereby the data processing unit furthermore comprises at least one operating unit with a graphical user interface (21, 32) for the operation of the printing unit (14) and/or the processing unit (12, 16).

10   22.   Printer or copier system according to claim 21, characterized in that the data processing unit is a host computer system and/or a server computer system, and that the data processing unit controls the production flow to generate a document.

15   23.   Printer or copier system according to claim 22, characterized in that the data processing unit controls the printing unit and the processing unit to produce the document.

24.   Method for the operation of an electrophotographic printer or copier system
20   with pre-processing unit and/or post-processing unit,

in that a print image is generated on a carrier material by a printing unit (14),

25   the carrier material operating system processed by a processing unit (12, 16) before and/or after the generation of the print image,

and in that the execution of a print job by a data processing unit is controlled and monitored at least for the printing unit (14), whereby an
30   operating unit with a graphical user interface (21, 32) is furthermore

provided by the data processing unit for the operation of the printing unit (14) and/or the processing unit (12, 16).

25. Operating unit for at least one electrophotographic printer or copier,

in which a display unit outputs a graphical user interface (21, 32), whereby the graphical user interface (21, 32) has a first section (25) with the user interface on which the input and/or output fields can be displayed with information about parameters of the printer and/or a processing unit connected with the printer (14),

has a second section (22, 34) in which is contained a menu in which a user interface that is displayed in the first section (25) can be selected from a plurality of displayable user interfaces,

and has at least a third section (38) in which at least one graphical function key (69 through 80) is contained for the operation of the printer (14) and/or the processing unit (12, 16) connected with the printer (14).

26. Operating unit according to claim 25, characterized in that the structural and/or function units of the pritter [sic] (14) as well as of the processing unit (12, 16) can be selected with the aid of the menu (22, 34).

27. Operating unit according to one of the claims 25 and 26, characterized in that the menu (22, 34) has a tree-like structure, whereby devices, in particular printer (14) and processing unit (12, 16), are partitioned into structural and/or function groups.

28. Operating unit according to any of the claims 25 through 27, characterized in that the displayable user interfaces (21, 32) respectively contain output fields and/or input fields (44 through 80).
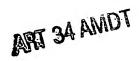
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29.   Operating unit according to any of the claims 25 through 28, characterized in that the representation and the function of the function key (69 through 80) significantly corresponds to a key present on the printer (14) or on the processing unit (12, 16).

30.   Operating unit according to any of the claims 25 through 29, characterized in that a plurality of function keys (69 through 80) are provided that correspond (in terms of the representation, function and arrangement) to operation keys present as hardware on the printer (14) and/or on the processing unit.

31.   Operating unit according to any of the claims 25 through 30, characterized in that a user interface (21, 32) is directly invoked with the aid of the function keys (69 through 80).

32.   Operating unit according to any of the claims 25 through 31, characterized in that the representation type and/or operating type of at least one user interface can be switched with the aid of the function key (69 through 80).

33.   Operating unit according to claim 32, characterized in that a representation of the control panel in which input fields are adapted for the input with the aid of a computer mouse and a second representation in which the input fields are activated for the input with the aid of a touch-sensitive screen are switched between.

34.   Method for the operation of an electrophotographic pritter [sic] or copier,

in that a graphical user interface (21, 32) is output by a display unit,

whereby in a first section (25) of the user interface (21, 32) a user interface is displayed on which detailed information (44 through 64) is displayed about parameters of the printer (14) and/or about parameters of the processing unit (12, 16) connected with this printer (14),

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in a second section (22, 34), a menu is displayed in which a user interface to be displayed, that is displayed in the first section (25), is selected from a plurality of displayable user interfaces,

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and whereby at least one graphical function key (69 through 80) of the printer (14) and/or of the processing unit (12, 16) connected with the printer (14) is contained in a third section (38).